

QUESTIONS AND ANSWERS FOR THE PLATTE RIVER CADDISFLY 12-MONTH FINDING

What is the Service's determination regarding the status of the Platte River caddisfly?

We have determined that protection of the Platte River caddisfly under the Endangered Species Act (ESA) is not warranted at this time. This finding is based upon our evaluation of all the available scientific and commercial information regarding the caddisfly, including an analysis of potential threats to the species and its habitat. If the Service proposes the Platte River caddisfly for listing in the future, the public will have an opportunity to comment.

Why did the Service make this decision?

Using the best scientific and commercial data available, we determined that although there are several activities that occur across the landscape that could adversely affect the caddisfly, the species is not threatened by these potential threats. Potential threats analyzed in the finding include: the potential present and future threat of habitat modification caused by large scale water development projects, such as dams, diversions, and irrigation; habitat modification caused by climate change, nonnative species, and grazing; and poor dispersal ability. When the species was determined to be a new species in 2000, it was thought to be extremely rare. However, since that time, we have conducted over 100 surveys in sloughs throughout Nebraska, and our knowledge about its range and distribution has grown tremendously. The species is currently known from 35 locations, and more populations would likely be found with increased survey efforts. The caddisfly exhibits life history traits that protect it from summer dry periods and drought, and so the species is not thought to be threatened by climate change. Over 60% of known populations occur on lands protected by conservation organizations, and these areas are not subject to development activities that could affect wetlands where the caddisfly occurs.

Could the Platte River caddisfly be listed in the future?

Should new information become available that the Platte River caddisfly is in decline across its range or threatened by any of the five factors analyzed in this 12-month finding, the Service can conduct additional status assessments. The Service could recommend listing under the Endangered Species Act in future findings.

What does a Platte River caddisfly look like?

The Platte River caddisfly is a species of insect in the order Trichoptera. Adults are small, or about 0.3-inch in length, and have light, brown wings with faint, white spotting and antennae that are twice as long as its body. The immature stage (larva) resembles a small caterpillar and has a yellow to whitish abdomen and dark brown head. However, the abdomen is covered by a sand-grained case that the caddisfly uses for camouflage and protection against crushing.

What is the lifecycle of the Platte River caddisfly?

The Platte River caddisfly has a 1-year lifecycle that requires aquatic habitat during most of its larval stage and terrestrial habitat during a portion of its larval stage and as an adult. This semi-terrestrial behavior is rare among caddisflies and other aquatic insects. In early autumn, adults emerge from their cases along the slough banks. Females lay eggs on the water surface; the eggs sink to the slough bottom, and then hatch in late autumn. Larvae hatch as first instars (larval stages) and remain that size through the winter months. As water temperatures rise in late winter, the larvae feed and grow rapidly through four more instars. Between mid and late spring,

larvae emigrate from the aquatic environment onto the surrounding banks and enter a period of inactivity (aestivation) that lasts about 4 months. Aestivation coincides with slough drying, and larvae may aestivate under loose leaf litter and areas with adequate shade or burrow into the ground near the high water line. Larvae seal off their cases in late summer and enter into the pupa phase, which lasts about 1 month until adult emergence in the early autumn. Adult emergence coincides with the return of waters to the sloughs where the caddisfly occurs.

Where do Platte River caddisflies live?

The Platte River caddisfly has been found in 35 backwaters, or sloughs, along the Platte, Loup, and Elkhorn Rivers in central Nebraska. These sloughs are connected to the main river channel but do not have flowing water. Sloughs with the caddisfly support typical wetland plants, such as cattails, sedges, and rushes. These wetlands often go dry during the summer, and the caddisfly is able to withstand these stressful periods by entering into a period of inactivity.

Why should we care about the Platte River caddisfly?

Like many aquatic insects, the presence of the Platte River caddisfly is indicative of a healthy river system, because the caddisfly is only found in backwater sloughs, and river stretches that are degraded do not support as many of these areas. For instance, the Platte River caddisfly and its slough habitat are absent from the most dewatered stretch of the Platte River in Nebraska. The most dewatered portion of the river stretches from around North Platte, Nebraska to Elm Creek, Nebraska, and is lined with several irrigation canals and reservoirs and just downstream of the Kingsley Dam, the largest dam on the Platte River. The species is also absent from areas that have been hampered by development that constricts the meandering of a river, such as in areas bound by bridges and housing developments. The presence of sloughs along the Platte, Loup, and Elkhorn Rivers indicates that certain stretches of the rivers have not degraded to the point that they cannot support backwater habitat suitable for the Platte River caddisfly. Also, the caddisfly feeds upon dead plant matter and prevents these wetlands from filling in.

Will efforts to conserve the Platte River caddisfly continue?

Despite our determination that the species does not warrant listing, we will continue to support efforts to conserve the species and its habitat within Nebraska. Several agencies and organizations are actively restoring wetlands throughout Nebraska, particularly along the Platte River, and this work is anticipated to have a positive effect on the species by increasing the amount of available slough habitat. Partner agencies and organizations, such as the Service's Partners for Fish and Wildlife Program, The Nature Conservancy (TNC), and the Headwaters Corporation, which oversees the Platte River Recovery Implementation Program (PRRIP) have expressed interest in conducting restoration work that would benefit the caddisfly. These groups have also worked with us to avoid impacts to the caddisfly during restoration activities. We also support PRRIP's goal of maintaining current flow conditions in the central Platte River. This work is being conducted through an environmental account managed by the Service and by offsetting depletions to the river that occurred after 1997. Several groups, including TNC, the Headwaters Corporation, the Crane Trust, the Nebraska Game and Parks Commission, Nebraska Public Power District, Central Nebraska Public Power and Irrigation District, and the Central Nebraska Natural Resources District have been involved with conducting surveys for the caddisfly on their properties or otherwise, and this work is ongoing. This work has been

important in contributing to our knowledge of the caddisfly. We will continue to seek opportunities to learn more about the species now and into the future.